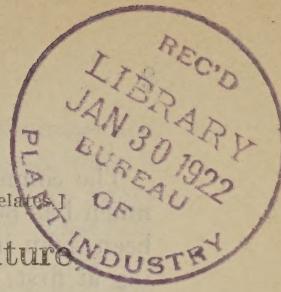
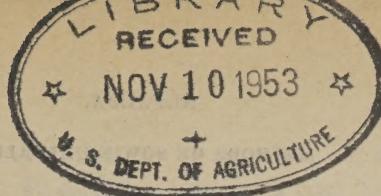


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S. D.—62. [This leaflet is distributed only with the seeds to which it relates.]

United States Department of Agriculture

BUREAU OF PLANT INDUSTRY,

New and Rare Seed Distribution,

WASHINGTON, D. C.

ALFALFA.

OBJECT OF THE DISTRIBUTION.—The distribution of new and rare seeds has for its object the dissemination of new and rare crops, improved strains of staple crops, and high-grade seed of crops new to sections where the data of the Department indicate such crops to be of considerable promise. Each package contains a sufficient quantity for a preliminary trial, and where it is at all practicable the recipient is urged to use the seed for the production of stocks for future plantings. It is believed that if this practice is followed consistently it will result in a material improvement in the crops of the country.

Please make a full report on the inclosed blank regarding the results you obtain with the seed.

DESCRIPTION.

The strain of alfalfa discussed in this circular was developed under dry-land conditions in the Great Plains region, where it has been grown for several seed generations. It is therefore thought to be better suited to semiarid conditions than strains produced in a more humid climate. It is not claimed that this alfalfa has exceptional drought resistance. So far, no variety of alfalfa has been found to be profitable in sections where the rainfall is too light for the best commercial strains that are now available. For parts of Texas, Oklahoma, New Mexico, and Kansas, where the rainfall is scant, the regional strain, if such it may be called, which is referred to in this circular, has shown itself to be equal, if not superior, to any alfalfa that is now on the market. In the localities where precipitation is light, the methods used in the culture of alfalfa frequently have more to do with success than the variety that is sown. Improvements in methods of dry-land farming and improvement in the variety by selection, either natural or otherwise, have made it possible to grow alfalfa in sections heretofore considered too dry for its profitable production. The use of improved seed should always be accompanied by good methods, and the mistake should not be made of treating good seed carelessly merely because it is thought to be of a strain more resistant to unfavorable conditions than that of the common strains.

METHODS OF SOWING ALFALFA.

The common method of sowing alfalfa is broadcasting, although much has been said regarding rows and considerable acreages have been sown in this way. The row method, while apparently promising at first, has proved to be a disappointment. It has neither produced larger yields of seed than the broadcast method nor has it resulted in making it possible to grow the crop profitably in sections too dry for broadcast stands. The cost incident to growing alfalfa in rows appears at this time to be out of proportion to the advantages that may be gained, and therefore farmers are not advised to sow large acreages by this method.

BROADCASTING.

It is essential that the seed bed for alfalfa be thoroughly prepared. In sections where spring sowing is preferable to fall sowing, it is advisable in most cases to plow the land during the preceding fall, leaving it rough, in order to hold the snow and prevent blowing. Beginning early in the spring repeated diskings and harrowings should be given to thoroughly settle the subsurface; also to bring about the germination of weed seeds and to destroy as many weed seedlings as possible. Where the crop is to be sown in the fall the ground should be plowed early in July and treated in essentially the same manner as in the case of spring sowing. These are the important points to be borne in mind: The surface of the seed bed should be thoroughly fine, to furnish suitable conditions for the germination of the seed; the subsurface should be well settled, to assist in the conservation of moisture and to promote the growth of the young plants; and the fields should be made as free from weeds as possible, in order to give the seedling alfalfa plants the necessary advantages of moisture and light.

On land that is very sandy the method of preparing the seed bed should be modified so as to reduce the effect of blowing to the minimum. The number of workings should be determined by the character of the soil and the probability of blowing.

The best date for sowing depends largely on the locality, and since there is already considerable experience in this regard, the farmer is advised to follow the practice of the most successful alfalfa raiser in his community. As a general rule, however, early fall sowing is commonly advised in the southern part of the Great Plains region and spring sowing for the northern part.

SOWING IN ROWS.

Farmers wishing to try the row method of raising alfalfa should start on a small scale. The preparation of the seed bed should be essentially the same as for broadcasting. A wide row and a thin

uniform stand is a combination to be sought. It is recommended that the rows be 36 to 42 inches apart and that not more than 2 pounds of seed be sown to the acre. A thick stand can not be easily thinned, neither can an uneven stand be satisfactorily remedied. Therefore the desirability of the uniformly thin stand at the beginning. To avoid difficulty in locating the rows for cultivation when the alfalfa plants are young, it has been found very advantageous to mix the seed of some quick-growing plant with the alfalfa seed. Such a plant should be one whose seeds are approximately the same size as the alfalfa seeds and whose seedlings are not difficult to destroy. The press drill is probably the best instrument for sowing, since by blocking up certain of the holes it can be made to sow in rows the desired distance apart. Light rollers, 15 to 18 inches in diameter and approximately 20 inches long, can be used to follow in the rows sown by the drill. The rollers compact the soil lightly and give the seed the necessary covering. They can be made from pieces of boards that are commonly found on the farm and can be attached to the drill in a frame. They are much more satisfactory than chains, the device the ordinary press wheels have for covering the seed. Frequent cultivation is necessary to keep down the weeds. Until the alfalfa has made a heavy growth a weeder can be used to advantage. After this, an ordinary cultivator or a beet cultivator is satisfactory. Care should be taken not to ridge the rows any more than is absolutely necessary. Flat cultivation is very desirable. Three cultivations are usually required during the season after the alfalfa is once established.

BULLETINS AVAILABLE.

The following Farmers' Bulletins on alfalfa are available for free distribution upon application to the Secretary of Agriculture, Washington, D. C.: Nos. 339, Alfalfa; 865, Irrigation of Alfalfa; and 757, Commercial Varieties of Alfalfa.

Approved:

Wm. A. TAYLOR,
Chief of Bureau.

SEPTEMBER 20, 1921.

